

## REMARKS

Applicant wishes to thank the Examiner for the attention accorded to the instant application, and respectfully requests reconsideration of the application in light of the following amendments and remarks.

Claims 1-16, 18-21, 23, 24, 35-37, 39-42, 44 and 45 are pending in the subject application, with claims 1, 6, 7, 12, 13, 18, 35 and 39 being in independent form. Claims 1-16, 18-21, 23, 24, 35, and 39 are amended herein. Specifically, the claims are amended to replace “adapted to” with “configured to” as discussed below. In addition, the independent claims are amended to more clearly recite the invention by moving or deleting phrases and by reciting that the steerable catheter is a human-controllable steerable catheter which is manually operated and that the controller non-manually manipulates the distal tip of the catheter. Support for these amendments can be found in the original specification, for example, in Figure 2 and page 24, line 12 to page 25, line 20. Claims 17, 22, 25-34, 38 and 43 were previously cancelled without disclaimer or prejudice to Applicants’ right to pursue the subject matter of these claims in the future.

Applicants respectfully submit that no new matter has been introduced by this Amendment. Entry of this Amendment is respectfully requested.

### Rejection of Claims 1-16, 18-21, and 23, 24 under 35 U.S.C. §112, second paragraph

The Examiner rejected claims 1-16, 18-21, 23, 24, 35-37, 39-42, 44 and 45 under 35 U.S.C. §103(a) as indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner generally objects to the phrase “adapted to be” and requests that this phrase be removed or replaced with “configured to”.

Applicant herein amends the claims to remove “adapted to” or to replace “adapted to” with “configured to” throughout.

The Examiner also finds it unclear whether or not the control unit is a part of the robot in claims 13 and 18. Claims 13 and 18 recite an embodiment in which the control unit is not part of the robot. This embodiment can be found in the original specification on page 26, line 30 to page 27, line 3.

Withdrawal of these rejections is respectfully requested.

Rejection of Claims 1-5 and 7-11 under 35 U.S.C. §102(b)

The Examiner rejected claims 1-5 and 7-11 under 35 U.S.C. §102(b) as anticipated by Ben-Haim (U.S. Patent No. 6,083,170). This rejection should be withdrawn based on the comments and remarks herein.

As amended herein, the claims of the present invention recite, *inter alia*, a human-controllable steerable catheter comprising a thumb control configured to manually control a deflection of a distal tip of the catheter and a position sensor configured to generate a position signal. Hence, these limitations to the thumb control and the position must be given patentable weight.

Ben-Haim teaches, for some embodiments, a catheter that includes an operator interface unit that can include a steering control which enables the operator to steer the catheter by controlling the distal tip deflection mechanism (column 13, lines 51-57). This distal tip deflection mechanism comprises a mechanical pull-wire (column 12, lines 41-42).

By contrast, the catheter recited in the claims of the present invention has a thumb control configured to manually control a deflection of a distal tip of the catheter. Ben-Haim does not

teach or suggest a catheter with a thumb control configured to manually control a deflection of a distal tip of the catheter.

Further, Ben-Haim teaches a catheter with a position sensor that senses the presence of an obstruction and/or variations in the velocity of blood flow (column 8, lines 39-40). The sensor preferably comprises a miniature ultrasound transducer that emits an ultrasound beam (column 2, lines 17-19, column 9, lines 37-39). Ben-Haim does not teach or suggest a position sensor generating a position signal indicative of six dimensions of location and orientation information or positioning the distal tip based on the six dimensions of location and orientation information, as recited in the independent claims of the present invention.

It has been held by the courts that “Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim.” *Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Company et al.*, 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984). Ben-Haim does not teach either a human-controllable steerable catheter comprising a thumb control configured to manually control a deflection of a distal tip of the catheter, or a position sensor configured to generate a position signal indicative of six dimensions of location and orientation information, so that Ben-Haim does not include each and every element of the claimed invention. Thus Ben-Haim does not anticipate the claims of the present invention. Accordingly, withdrawal of this rejection is respectfully requested.

Rejection of Claims 1-16, 18-21, 23, 24, 35-37, 39-42, 44 and 45 under 35 U.S.C. §103(a) – Ben-Haim

The Examiner rejected claims 1-16, 18-21, 23, 24, 35-37, 39-42, 44 and 45 under 35 U.S.C. §103(a) as being allegedly unpatentable over Ben-Haim. This rejection should be withdrawn based on the comments and remarks herein.

As discussed above, Ben-Haim does not teach a human-controllable steerable catheter comprising a thumb control configured to manually control a deflection of a distal tip of the catheter. Instead, Ben-Haim teaches a only one operator controlled catheter; this catheter includes a tip deflection mechanism having a mechanical pull-wire, and this mechanism is operated by an operator interface unit that can include a steering control that enables the operator to steer the catheter. Ben-Haim does not disclose any other operator controlled catheter; instead, each of the other catheters taught Ben-Haim has a self-aligning mechanism.

Further, Ben-Haim does not teach or suggest a catheter with a position sensor configured to generate a position signal indicative of six dimensions of location and orientation information. Instead, Ben-Haim teaches a position sensor that has a miniature ultrasound transducer that emits an ultrasound beam.

Thus, Ben-Haim does not teach or suggest a human-controllable steerable catheter as recited in the claims of the present invention.

Withdrawal of the Examiner's rejection of claims 1-16, 18-21, 23, 24, 35-37, 39-42, 44 and 45 under 35 U.S.C. §103(a) as being allegedly unpatentable over Ben-Haim is respectfully requested.

## Conclusion

In view of the above, Applicants respectfully submit that the subject application is in condition for allowance. Accordingly, Applicants respectfully request that the subject application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicants' attorneys would be advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned.

Respectfully submitted,

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